ufw Simple Linux firewall

CONCEPTS

Do not lock yourself out
Over SSH, allow ssh (or your custom port) before 'ufw enable'. Enabling flushes the chains and may drop your session.

Packet in direction + port
↓ built-in rules
ufw rules top to bottom
↓ no match
Default policy incoming: deny
↓ verdict
Allow / deny optional log

Packet check: first matching rule wins, else the default policy

Defaults after install: incoming deny, outgoing allow, firewall disabled. Rules are added for IPv4 and IPv6 together.

Rule order matters. Put narrow exceptions (insert 1) above broad denies.

FIREWALL STATE

sudo ufw enable
Enable now and at boot

sudo ufw disable
Stop the firewall

sudo ufw status
Active or inactive, plus rules

sudo ufw status verbose
Also defaults and logging

sudo ufw status numbered
Rules with index numbers

sudo ufw reload
Reapply the rules

sudo ufw reset
Disable and wipe all rules

DEFAULT POLICY

sudo ufw default deny incoming
Block unsolicited inbound

sudo ufw default allow outgoing
Allow all outbound

SIMPLE RULES

sudo ufw allow *<port>*
Allow a port, tcp and udp

sudo ufw allow *<port>*/tcp
Allow one protocol

sudo ufw allow *<service>*
Allow by name from /etc/services

sudo ufw deny *<port>*/tcp
Silently drop a port

sudo ufw limit ssh
Allow but throttle repeats

sudo ufw allow 6000:6007/tcp
Allow a port range

sudo ufw allow 22,80,443/tcp
Several ports in one rule

FULL SYNTAX

sudo ufw allow from *<ip>*
Allow all from one host

sudo ufw deny from *<ip>*
Block one host

sudo ufw allow from *<cidr>* **to any port** *<port>*
Allow a subnet to a port

sudo ufw allow from *<ip>* **to any port** *<port>* **proto tcp**
Host, port and protocol

MANAGE RULES

sudo ufw delete *<num>*
Delete by rule number

sudo ufw delete allow *<port>*/tcp
Delete by repeating the rule

sudo ufw insert *<num>* **deny from** *<ip>*
Insert at a position

APPLICATION PROFILES

sudo ufw app list
Available profiles

sudo ufw allow '*<profile>***'**
Allow by profile name

LOGGING AND REPORTS

sudo ufw logging on
Enable logging